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Regulatory File

Con Edison
Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003

September 27, 1974

Re: Indian Point Unit No. 2
AEC Docket No. 50-247
A.O. 4-2-31

Mr. Edson G. Case, Acting Director
Directorate of Licensing
Office of Regulation
U. S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Case:

In accordance with the requirements of the Technical Specifications to Facility Operation License DPR-26, the attached report of an Abnormal Occurrence is submitted.

Walter Stein

Walter Stein, Manager
Nuclear Power Generation

Copy to: Mr. James P. O'Reilly
Regulatory Operations

10253

1. Report Number: 50-247/4-2-31

2a. Report Date: September 27, 1974

2b. Occurrence Date: September 17, 1974

3. Facility: Indian Point Unit No. 2

4. Identification of Occurrence:

This occurrence was the type defined by Technical Specification 1.8.d and relates to a malfunction of No. 21 diesel generator.

5. Conditions Prior to Occurrence:

Prior to the occurrence, Unit No. 2 was operating at approximately 100% of rated power.

6. Description of Occurrence:

During the conduct of periodic surveillance test PT-W1, "Diesel Generator Test", No. 21 diesel generator was started and operated at the no load condition. After running for approximately five minutes, the diesel began to slow down. The diesel was consequently shutdown and an investigation to determine the cause was initiated.

7. Description of Apparent Cause of Failure:

The investigation conducted revealed that water was in the fuel oil day tank which supplied the diesel. It was determined that this water had entered the drip tank and was recycled to the day tank. Analysis of the water showed that it was chromated at the same concentration as the jacket water cooling system. Samples were also taken from the day tanks, strainers, drip tanks and storage tanks in the fuel oil systems of the remaining diesels. Since all of these samples were found satisfactory, the fuel contamination condition was verified to exist only on No. 21 diesel.

Although it has not been possible to positively identify the mechanism by which the drip tank became contaminated with water, it is assumed that such contamination occurred approximately two weeks earlier during a maintenance effort performed on the jacket water cooler which is located directly above the tank.

8. Analysis of Occurrence:

Our review of this occurrence indicates that the safety implications are not significant.

The diesel generators are installed to supply power during safeguards actuation concurrent with blackout. At the time of this occurrence, outside power was available and safeguards actuation had not been initiated. In addition, only two diesels are necessary to meet the minimum design requirements. Both of the two remaining diesels were tested and verified operable.

9. Corrective Action:

Following identification of the water contamination condition, the fuel oil system was drained to remove the water. Three fuel injectors also had to be replaced because of the contamination. After the above work was completed, the diesel was tested and verified operable.

To prevent recurrence, the outlet of each of the drip tanks has been isolated from its associated day tank and controls have been established which require sampling of the tank contents prior to recycling to the day tank.

10. Failure Data:

This is the first time a diesel generator has malfunctioned due to fuel contamination.

Previous failures of a diesel generator were reported in Abnormal Occurrence Reports A.O. 4-2-11, A.O. 4-2-13, A.O. 4-2-23 and A.O. 4-2-27 dated March 26, 1974, April 7, 1974, August 16, 1974 and September 3, 1974, respectively.

Diesel Generator

White Industrial Power, Inc.
Alco Engines Division
16 Cylinder, Vee Configuration, 4 cycle,
turbo-charged engine, rated at 2450 HP
and 900 RPM.

11. Notification:

An initial telephone report of this occurrence was provided the Region 1 Regulatory Operations Office on September 17, 1974, followed by facsimile letter on September 18, 1974.

5/2 30